#### **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.





## NEWS LETTER



## MANNING SEED COMPANY

DEXTER HORTON BUILDING SEATTLE 4, WASHINGTON, U.S.A.

#### PRICE LIST FOR AVAILABLE CERTIFIED MANINGSEED

11/20/50

12. 9			8-3-6
Region, Zone * and Elevation Lot No.	Botanical Name	Common Name	Price/Lb.
49-0.5 Al-0.5 78-2.0	Chamaecyparis Lawsoniana Chamaecyparis nootkatensis Thuja plicata	Port Orford Cedar Alaska Cedar Western Red Cedar	Sold \$14.00 9.00
C1-4.0 Poor Crop C2-5.0 85-2.0 103-2.0	Abies concolor Abies grandis Abies magnifica Abies nobilis Abies amabilis	White Fir Grand Fir California Red Fir Noble Fir Silver Fir	5.50  8.00 6.00 6.00
Sold Sold	Tsuga heterophylla Tsuga Mertensiana	Western Hemlock Mountain Hemlock	Sold Sold
xx	Pseudotsuga taxifolia (viridis	Douglas Fire	
	Larix	b) Douglas Fir	XX
Japan Sold	Larix leptolepis Larix occidentalis	Japanese Larch Western Larch	5.00 Sold
C1-4.0 29-0.5 41-0.5 01-3.0	Pinus Pinus ponderosa Pinus contorta Pinus contorta Pinus contorta-var. Murrayana	Western Yellow Pine Lodgepole Pine Lodgepole Pine Mountain Lodgepole Pi	5.50 8.00 8.00 ne 8.00
Sold Col-4.0 29-0.5 Bl-0.5	Picea Picea Engelmannii Picea pungens Picea sitchensis Picea sitchensis	Engelmann Spruce Blue Spruce-Colorado Sitka Spruce-Washingto Sitka Spruce-British Columbia, Canada	Sold 6.25
M1-3.0	Picea glauca	Western White Spruce	8.00
C2-6.0 C3-1.0	Sequoia Sequoia gigantea Sequoia sempervirens	Big Tree Redwood	12.00

<sup>\*</sup> The first numeral or letter is the region; the second numeral is the exact collection zone. The number following the dash is the elevation range. (See footnote, Bulletin No. 2)

xx See Douglas Fir price lists for lot numbers and prices.

But y AND THE STREET and the grade 0.534 B111126. 61. (61) 1 Little Bridge Town The Callin 16 1- 500 C 47742 Lange Villagia V V 2 = 1 The charge of the ..... - वेसे के प्रेन्द्रे के हैं Errich Brand in 0.5 \* \* \* . \* 15 (5) JA . # 1. # 1. . t. T. Sarana, walkan  $\{(x_i, y_i), (x_i, y_i), (x_$ Tally access of the second of The recession of the con-the state of the state of nd transmission (des legina) the transfer of the 41-81 ात संस्था र មករាជា ៤០១, សម្បី ខ្លុំ ម៉ាង។ និ The man of the first of the second of the se e de la companya de la co dita tan tan may jiya darak Tradestation and the second in elections where en in and the second part is in The second section of the s e autorogus, autori etc e autorogus, autori etc f anna 1 se niche de l'autorogus THE HEAVINGS Annon the state of the second second of the second កា អាវុធ របស់ ខេលាកាស្រាស់ ស្រាស់ នេះ និង និង មានប្រ

प्रकार के प्रकार के लिए हैं है को किस्से के स्वाहत है के स इस को किस के के से लिए हैं के से किस के



DEXTER HORTON BUILDING SEATTLE 4, WASHINGTON, U.S.A.

## AVAILABLE DOUGLAS FIR SEED - BY LOT NUMBERS CERTIFIED MANINGSEED

Region, Zone * and Elevation Lot No.	COLLECTION AREAS	Nearest Weather Station No. **	Price*** Per Lb.
(Region 1) 13-0.5	Forks (Sappho)	7	BONDED***
(Region 2) 22-0.5 51-0.5 53-0.5 (Region 5) 55-1.0 55-2.0 56-1.0 56-2.0	Hoquiam San Juan Camano Island Sequim Sequim Quilcene Quilcene (Louella)	Between 19 and 16 32 33 5 5 11 14	\$8.75 9.75 6.75 BONDED::: BONDED::: BONDED::: BONDED::: BONDED:::
(Region 6) 65-1.0 72-1.0 72-2.0 73-1.0	Darrington Enumclaw Enumclaw Graham	51 Between 60 and 71 Between 60 and 72 71	BONDED*** \$7.50 8.75 8.75
(Region 7) 74-0.5 75-0.5 76-1.0 77-0.5 78-2.0 79-1.0 79-2.0 82-1.0 83-2.0 (Region 8) 84-2.0 86-1.0	Elma Yelm Tenino Pe Ell Ashford (National) Castle Rock Castle Rock Vernonia Yacolt Eslacadia Sweet Home Lowell	Between 18 and 84 Between 37 and 81 Between 85 and 37 89 Between 74 and 76 95 95 + 113 + 100 + 125 Between 153 and 154 159	7.00 6.75 7.00 7.50 8.75 9.50 BONDED*** 8.75 BONDED*** 6.75 6.00
88-1.0 89-2.0	Cottage Grove Santiam River	157 Between 135 and 160	6.75 6.75
(Region 10) <u>102-2.0</u>	Wind River	105	BONDED
(Canada) <u>Bl0-2.0</u>	Shuswap	Rainfall19 inches	7.00

<sup>\*</sup> The first numeral of the Lot Number is the region - See Bulletin No. 1 for full explanation. The second numeral is the exact cone collection zone - see MANING-SEED Douglas Fir Site Maps for details. The number following the dash is the elevation range in thousands of feet, according to this table:

0.5 = 0 to 500 feet 1.0 = 0 to 1000 feet 2.0 = 1001 to 2000 feet 3.0 = 2001 to 3000 feet

Note: For prices marked "BONDED" see BONDED MANINGSEED Price List.

<sup>\*\*</sup> See Booklet: "Better Douglas Fir Forests from Better Seed", pages 40-45.

Only BONDED MANINGSEED available from these locations at this time.

<sup>4-</sup> Adjustment in weather station data is necessary because of higher elevation.

in the state of th

Addition ()

A. A. Walley

1. 1-58



DEXTER HORTON BUILDING SEATTLE 4, WASHINGTON, U.S.A.

#### CURRENTLY AVAILABLE BONDED DOUGLAS VIRIDIS

Region, * Zone and Elevation	BONDED MANINGSEED COLLECTION AREAS Order Bonded Seed by Lot Number	Neares Weather S Number	station	Prepaid*** Bonded Seed Price/Lb.
Lot No.				
(Region 1) <u>13-0.5</u>	Forks (Sappho)	7		\$18.00
(Region 2) 22-0.5 (Region 5) 55-1.0 55-2.0 56-1.0 56-2.0	Hoquiam Sequim Sequim Quilcene Quilcene	Between 19 5 5 14 14		15.00 15.00 17.50 13.50 15.00
(Region 6) <u>65-1.0</u> 72-1.0 72-2.0	Darrington Enumclaw Enumclaw	51 Between 60 Between 60		25.00 15.00 16.00
(Region 7) 74-0.5 76-1.0 78-2.0 79-1.0 79-2.0 82-1.0 83-2.0	Elma Tenino Ashford (National) Castle Rock Castle Rock Vernonia Yacolt	113 100	and 37 and 76	13.50 10.00 14.00 13.50 15.00 13.50
(Region 8) 84-2.0 86-1.0 88-1.0 89-2.0	Eslacadia Sweet Home Cottage Grove Santiam River	125 Between 153 157 Between 135		13.50
(Region 10) 102-2.0	Wind River	105		17.50
(Canada) <u>B10-2.0</u>	Shuswap	Rainfall 19	inches	13.50

<sup>\*</sup> The first numeral of the Lot Number is the region - see Bulletin No. 1 for full explanation. The second numeral is the exact cone collection zone - see MANING-SEED Douglas Fir Site Maps for details. The number following the dash is the elevation range in thousands of feet, according to this table:

0.5 = 0 to 500 feet 1.0 = 0 to 1000 feet 2.0 = 1001 to 2000 feet 3.0 = 2001 to 3000 feet

<sup>\*\*\*</sup> ALL BONDED MANINGSEED is forwarded via AIR at our expense. Delivery to any international airport requires about three days.

See booklet "Better Douglas Fir Forests from Better Seed", pages 40-45

<sup>+</sup> Adjustment in weather station data is necessary because of higher elevation.





DEXTER HORTON BUILDING SEATTLE 4, WASHINGTON, U.S.A.

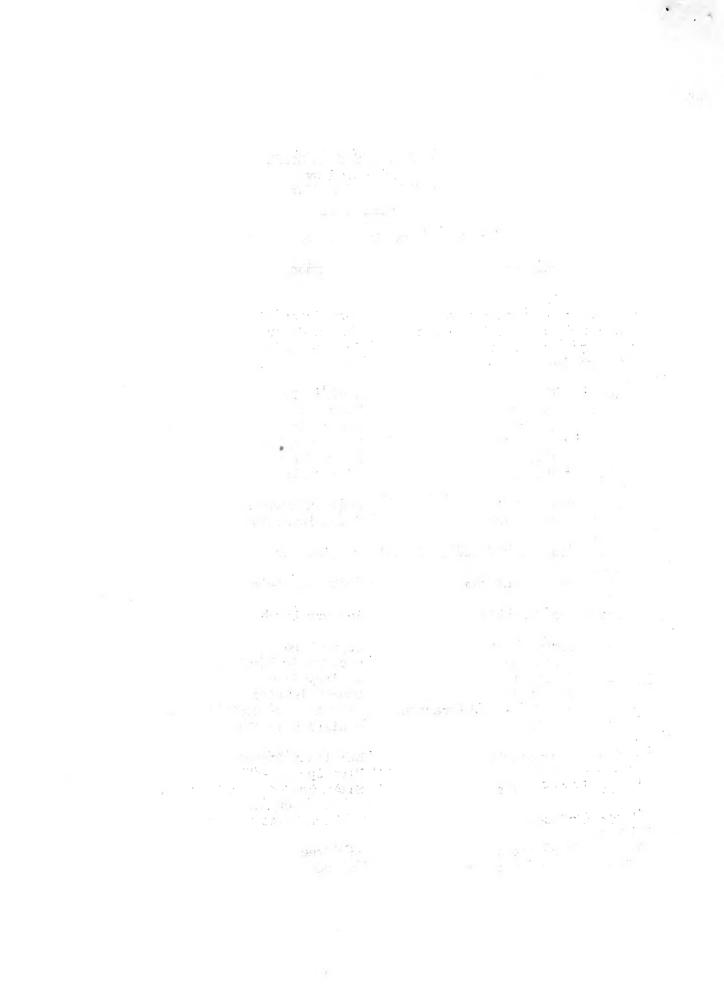
62,91

## WEST COAST TREE SEEDS collected by MANNING SEED COMPANY

JAN 3 0 1951

#### Alphabetically with Code Letters

Botanical Name	Common Name	Code
Chamaecyparis		0
Chamaecyparis Lawsoniana	Port Orford Cedar	C C-l
Chamaecyparis nootkatensis	Alaska Cedar	C-2
Libocedrus decurrens	Incense cedar	C-3
Thuja plicata	Western Red Cedar	C-4
Abies	Wob dor if floor occar	F
Abies lasiocarpa	Alpine Fir	F-1
Abies concolor	White Fir	F-2
Abies grandis	Grand Fir	F-3
Abies magnifica	California Red Fir	F-4
Abie: nobilis	Noble Fir	F-5
Abies amabilis	Silver Fir	F-6
Tsuga		Н
Tsuga heterophylla	Western Hemlock	H-]_
Tsuga Mertensiana	Mountain Hemlock	H-2
Pseudotsuga		HF
Psuedotsuga taxifolia (viridis)	Douglas Fir	Hf-l
Juniperus		J
Juniperus scopulorum	Rocky Mountain Juniper	J - 2
Larix		L
Larix occidentalis	Western Larch	L-l
Pinus		P
Pinus Lambertiana	Sugar Pine	P-1
Pinus ponderosa	Western Yellow Pine	P-2
Pinus Jeffreyi	Jeffrey Pine	P-3
Pinus contorta	Lodgepole Pine	F-4
Pinus contorta-var.Murrayana	Mountain variety, Lodgepole Pine	P-4a
Pinus monticola	Western White Pine	P-5
Picca	W	S
Picea Engelmannii	Engelmann Spruce	S-1.
Picea pungens	Blue Spruce - Colorado	S-1.2
Picea sitchensis	Sitka Spruce - Washington,	
Pigos glavos	Oregon or Alaska	S-2
Picea glauca Sequoia	Western White Spruce	S-5
	D: W	Se
Sequoia gigantea	Big Tree	Se-l
Sequoia sempervirens	Redwood	SE-2



**West Coast Tree Seeds** 

# AVAILABLE Now!

Limited Supplies of

## DOUGLAS FIR SITKA SPRUCE

And Many Others for Immediate Delivery

Write or Wire ...

## MANNING SEED CO.

Dexter Horton Bldg. Seattle, Washington, U.S.A.

**Exclusive Collector of Better Coniferous Seeds** 

		•	



DEXTER HORTON BUILDING SEATTLE 4, WASHINGTON, U.S.A.

BULLETIN NO. 1

MANINGSEED COLLECTION REGIONS In the DOUGLAS-FIR FORESTS Of OREGON and WASHINGTON

The most important factors to observe in locating the correct seed sources for coniferous tree seeds are (1) average annual temperature, (2) minimum temperature, (3) rainfall, particularly during the growing season, and (4) general moisture conditions of the atmosphere.

In ordering "Bonded MANINGSEED", altitude and other topographic features should be taken into consideration as they affect climate, and within each region there may be specific soil conditions that will require consideration by the customer. The Douglas Fir region has dry summers; therefore, a seed source with a greater annual rainfall can be selected for planting at locations that have heavy rainfall during the growing season.

There are approximately eight degrees difference in the spread of average annual temperature between Canada and California in the Douglas-Fir region. There are also three specific climatic belts, namely:

(A) The so-called "fog belt" between the Coast Range and the sea on the Oregon and Washington coast;

(B) The drier interior valleys between the Coast Range and the middle elevation of the Cascades that extend from Puget Sound (Washington) south to the Siskiyou Mountains (Oregon), and

(C) A smaller area in the rain shadow of the Olympic Mountains (Washington) that includes a strip along the northeast end of the Olympic Peninsula, the eastern shore of Vancouver Island (British Columbia) and the Puget Sound Islands that lie to the east.

The fog belt zone and the dry interior valley zone as shown on MANNING SEED COMPANY maps have been broken down into separate regions that vary from 2 to 3 degrees in average annual temperature and vary also in minimum temperature and rainfall. They are as follows:

#### REGION 1

The cold, moist zone on the northwestern tip of the Olympic Peninsula that is characterized by low maximum and high minimum temperatures. Its average annual temperature is from  $47^{\circ}$  to  $49^{\circ}$  and has a minimum of  $+7^{\circ}$  F. The rainfall averages from 80 to 123 inches per year.

#### REGION 2

Cool, moist zone of the fog belt that extends south to include the mouth of the Columbia River. The average annual temperature in this zone varies from  $49^{\circ}$  to  $51^{\circ}$  with a +4 minimum and a rainfall of 60 to 126 inches.

#### REGION 3

The warm coastal zone that extends south to the Siuslaw River. Average annual temperature in this locality varies from 51° to 52° but has a minimum that drops to zero. The rainfall varies from 60 to 94 inches.

en de la composition La composition de la La composition de la

ou de la composició de por la composició de la composició de la composició de la composició de la composició d La composició de la compo La composició de la composició del composició de la comp

1. The second of the second

A CAMBERT OF THE CONTROL OF THE CONT

(a) The control of the production of the control of the control

#### REGION 4

This zone includes a broad coastal strip of highly productive forest that extends south to Cape Blanco, and a narrower coastal strip that extends south from there to the California line. It has an average annual temperature of  $52^{\circ}$  to  $53^{\circ}$  along the coast, and  $55^{\circ}$  in the interior with a minimum temperature of  $+14^{\circ}$ . It is moist but not wet, having a rainfall of from 52 to 78 inches.

#### REGION 5

This is the low rainfall zone in the rain shadow of the Olympics in the northern part of the Puget Sound region that has a maritime atmosphere. The average temperature varies from 48° to 50°. The minimum on the islands is +5° and on the mainland is -3°. The rainfall varies from 18 to 36 inches per year.

#### REGION 6

This is the cool northern zone on the west slope of the Cascades from which much of the seed was obtained that has been sent to Europe to date. The average temperature varies from 49° to 50°, but the minimum drops to -11°. The average rainfall varies from 36 to 76 inches.

#### REGION 7

This is the first of the broad interior valley zones where the middle of the zone is made up of agricultural lands and the fringes toward the Coast Range to the west and toward the Cascades to the east constitute the forest areas. It varies in average annual temperature from  $50^{\circ}$  to  $52^{\circ}$ . The minimum varies also showing in some localities a minimum of  $\pm 10^{\circ}$  and dropping as low in others as  $-16^{\circ}$ . The rainfall varies from 30 to 60 inches.

#### REGION 8

This zone includes the northern half of the Willamette Valley from the summit of the Coast Range to the middle elevations in the Cascades. The average annual temperature varies from 52° to 53° with a minimum temperature of 10°. Like the zone to the north, the rainfall varies from 30 to 60 inches.

#### REGION 9

This includes the dry part of southwestern Oregon where, as you proceed southward, the Douglas-Fir is replaced for the most part by ponderosa pine, and the forests in a few instances divert from their characteristic even-aged condition to a somewhat all-aged forest. The average annual temperature varies from 53° to 54° but has a minimum as low as -10°. The rainfall varies from 20 to 45 inches.

As previously stated, these zones are general in character. They are based on U. S. Weather Bureau records as published in the publication "Better Douglas-Fir Forests from Better Seed" printed by the University of Washington. These records represent mostly the middle and lower altitudes within their respective regions. When cone collections are made at higher elevations, they will represent a proportionately colder and more moist climate.

MANNING SEED COMPANY

u into-

This some northings a broad cosets arily to the proof of the cost of the care of the manial lines. It has an entrust, the cosets, such a the interest of the cosets, such the interior with a property of the cosets, such the interior with a process cost of the care of the

p you will be

This is the low rainfall zone in the east station of the fine entropy of the fine entropy of the Puget cound region the fact a maximum and the function is set the particular variet from is 60°. The resistant of the resistant is -3°. The rainfast variet than is of the fine in the fine of the fi

11116.25

This is the cool partners or the west signs of the line with which much of the section v is the section obscured list has seen only to the residence while v is the first from v is v in the constant while from v is v in the constant v is a constant of the v is the constant of the v is the constant v is the first v is the constant of the v is the constant v is the constant of the v is the v is the v is the v in the v in the v is the v in the v in the v in the v in the v is the v in the v interesting v in the v in

7 WOLLS

This is the funct of the broad line to the requirement of the sume is rede up of agreently and the requirement to the west and bowsed the appraisance from 50° of 50°. This is the respective of minum, of 410° and cropping as it is a restricted to the rainfall varies from 30 to 60° or than.

8 HULDER

This some includes the ampubers in it that in the Trie of the same substituted of the coast Range to the property of the coast Range to the coast Range of the Coast

1 - 15-15

this colledes to dry part of semenses in the collection of the collection of the collection of the collections of the collection of the co

Wangan Jayan Care, S

#### IDENTIFICATION OF CONE COLLECTION REGIONS

The Regions from which "BONDED MANINGSEED" is collected are identified by code numbers such as the following:

Region 61-0-50 or Lot No.61-0-50

which means Region 6, Zone 1, zero to 500 feet elevation, collected 1950. This regional information is used by all MANNING SEED COMPANY foresters in identifying special seed collected and bonded by our Company.

Collection zones within each region can further be defined by using U. S. Land Survey Lines information from Douglas Fir Region Maps, such as our seed from Darrington at Region 6, Zone 1, Township 32 North, Range 9 East from the Willamette Meridian. In this 6 mile square (Twp. 32 N., R. 9 E.), you will find the Darrington area.

This method of designating a collection area is more accurate than the old method of using Longitude 122°, Latitude 48°, to identify Darrington seed.

A sample of the identification tags used by our foresters is enclosed. With tags such as these attached to each sack of cones we are able to accurately identify all BONDED MANINGSEED and keep each lot separate until sealed and labeled for shipment.

MANNING SEED COMPANY

100

## 

ు కాండ్రి కొన్నారు. అన్నారు కోస్పులో ప్రాంతి మెక్క్ స్టార్స్ పాటుకుండి కోస్పులోని పాటుకుండి. మామ్లో ఎం క్రాంతి పాటుకుండి కోస్స్ కోస్ట్ కాండ్ పాటుకుండి కాండ్ పాటుకుండి కాండ్ పాటుకుండి పాటుకుండి. మామ్లో మామ్లో పాటుక

### the set water is

#### 3. . . . . x x x 10

A HOLD COLLEGE OF COLL A TOTAL COLLEGE OF COLLEGE OF

ម្នាក់ ព្រះបានក្រុម នេះ បានក្រុម ប្រជាពីក្រុម ប្រជាពីក្រុម ប្រជាពីក្រុម ប្រឹក្សា ក្រុមប្រឹក្សា ស្ថិញ ប្រឹក្សា ព្រះបានក្រុមប្រឹក្សា ក្រុមប្រឹក្សា ស្រាស់ ប្រជាពីក្រុមប្រឹក្សា ប្រឹក្សា ក្រុមប្រឹក្សា ក្រុមប្រឹក្សា ប្រឹក្សា ក ព្រះបានប្រឹក្សា ស្រាស់ ប្រឹក្សា ស្រាស់ ប្រឹក្សា ស្រាស់ ប្រឹក្សា ស្រាស់ ស្រាស់ ស្រាស់ ស្រាស់ ស្រាស់ ស្រាស់ ស្រា

្រុំ ស្រាស់ស្គ្រាស់ បានប្រជាពលរបស់ និងសុខសាល់ ស្គ្រីស្គាស់ស្គាស់ស្គ្រាស់ សុខសាល់ ស្គាស់ស្គាស់ស្គាល់ បានប្រជាពល ការស្ថិត ស្គ្រីសុខសាល់ បានប្រជាពលរបស់សុខសាល់ ការសុខសាល់ សុខសាល់ សុខសាល់ សុខសាល់ សុខសាល់ សុខសាល់ សុខសាល់ សុខសាល សុខសាល់ សុខសាល់

We have the same